AMENDMENTS TO THE CLAIMS:

Claim 1 is amended. Claim 254 is added. Claims 141-240 and 242-254 are pending. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-140 (Cancelled.)

468, 469, 470.

- 141. (Previously presented.) An isolated variant of a parent glucoamylase comprising a mutation at one or more of the following positions of amino acid position 402 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in a homologous glucoamylase having at least 80% homology with the amino acid sequence shown in SEQ ID NO:2, and wherein said variant has glucoamylase activity.:

 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 33, 34, 35, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 53, 56, 58, 60, 61, 62, 73, 74, 75, 76, 77, 78, 79, 80, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 109, 110, 111, 113, 114, 115, 117, 118, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 234, 235, 237, 238, 239, 240, 242, 243, 244, 245, 287, 288, 289, 290, 291, 292, 294, 295, 296, 298, 299, 300, 301, 303, 304, 308, 311, 314, 315, 316, 318, 319, 334, 335, 336, 337, 338, 339, 340, 341, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 394, 399, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 384, 388, 390, 394, 394, 399, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 3
- 142. (Previously presented.) The variant of claim 141, wherein said homologous glucoamylase has at least 90% homology to SEQ ID NO:2.

448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 461, 462, 463, 464, 465, 466, 467,

- 143. (Previously presented.) The variant of claim 141, wherein said homologous glucoamylase has at least 95% homology to SEQ ID NO:2.
- 144. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 1 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

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(Currently amended.) The variant of claim 254141, wherein said variant comprises a 145. mutation at position 2 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

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- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 146. mutation at position 3 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 147. (Currently amended.) The variant of claim 254144, wherein said variant comprises a mutation at position 4 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 148. mutation at position 5 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 149. (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 6 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 150. mutation at position 7 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a mutation at position 8 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- (Currently amended.) The variant of claim 254141, wherein said variant comprises a 152. mutation at position 9 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 153. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 11 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 154. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 10 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 155. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 12 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 156. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 13 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 157. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 14 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 158. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 15 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 159. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 16 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 160. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 17 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 161. (Currently amended.) The variant of claim 254141, wherein said variant comprises a

mutation at position 18 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 162. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 19 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 163. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 21 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 164. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 22 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 165. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 23 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 166. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 24 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 167. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 25 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 168. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 26 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 169. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 28 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding

position in said homologous glucoamylase.

- 170. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 29 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 171. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 31 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 172. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 32 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 173. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 33 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 174. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 34 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 175. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 35 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 176. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 40 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 177. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 41 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 178. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 42 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 179. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 43 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 180. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 44 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 181. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 45 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 182. (Currently amended.) The variant of claim <u>2541441</u>, wherein said variant comprises a mutation at position 46 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 183. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 47 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 184. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 49 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 185. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 51 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 186. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 53 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 187. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 56 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 188. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 58 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 189. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 60 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 190. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 61 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 191. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 62 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 192. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 73 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 193. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 74 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 194. (Currently amended.) The variant of claim 254144, wherein said variant comprises a

mutation at position 75 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 195. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 76 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 196. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 77 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 197. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 78 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 198. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 79 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 199. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 80 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 200. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 93 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 201. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 94 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 202. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 95 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding

position in said homologous glucoamylase.

- 203. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 96 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 204. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 97 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 205. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 98 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 206. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 99 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 207. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 100 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 208. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 101 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 209. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 102 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 210. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 103 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 211. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 104 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 212. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 105 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 213. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 106 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 214. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 107 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 215. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 109 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 216. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 110 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 217. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 111 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 218. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 113 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 219. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 114 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 220. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 115 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 221. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 117 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 222. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 118 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 223. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 200 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 224. (Currently amended.) The variant of claim <u>2544441</u>, wherein said variant comprises a mutation at position 201 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 225. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 202 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoarnylase.
- 226. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 203 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 227. (Currently amended.) The variant of claim 254141, wherein said variant comprises a

mutation at position 204 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 228. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 205 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 229. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 206 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 230. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 207 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 231. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 208 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 232. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 209 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 233. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 210 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 234. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 211 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 235. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 234 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding

position in said homologous glucoamylase.

- 236. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 235 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 237. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 237 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 238. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 238 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 239. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 239 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 240. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 240 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 242. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 242 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 243. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 243 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 244. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 244 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 245. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 245 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 246. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 287 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 247. (Currently amended.) The variant of claim <u>254</u>144, wherein said variant comprises a mutation at position 288 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 248. (Currently amended.) The variant of claim <u>254141</u>, wherein said variant comprises a mutation at position 289 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 249. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 290 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 250. (Currently amended.) The variant of claim <u>254144</u>, wherein said variant comprises a mutation at position 291 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 251. (Currently amended.) The variant of claim <u>254</u>141, wherein said variant comprises a mutation at position 292 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 252. (Currently amended.) The variant of claim 444254, wherein said variant comprises a mutation at position 294 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.

- 253. (Currently amended.) The variant of claim 441254, wherein said variant comprises a mutation at position 295 in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in said homologous glucoamylase.
- 254. (New.) An isolated variant of a parent glucoamylase comprising a substitution of an amino acid at one or more of the following amino acids in the amino acid sequence shown in SEQ ID NO:2 or at a corresponding position in a homologous glucoamylase having at least 80% homology with the amino acid sequence shown in SEQ ID NO:2, and wherein said variant has glucoamylase activity.:
- 1. 2, 3, 4, 5, 6, 7, 8, 9, 11, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 33, 34, 35, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 53, 56, 58, 60, 61, 62, 73, 74, 75, 76, 77, 78, 79, 80, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 109, 110, 111, 113, 114, 115, 117, 118, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 234, 235, 237, 238, 239, 240, 242, 243, 244, 245, 287, 288, 289, 290, 291, 292, 294, 295, 296, 298, 299, 300, 301, 303, 304, 308, 311, 314, 315, 316, 318, 319, 334, 335, 336, 337, 338, 339, 340, 341, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 384, 388, 390, 394, 397, 398, 399, 402, 403, 404, 405, 406, 409, 412, 413, 414, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470.